RESEARCHUPDATE
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Research Update is published by the Butler Center for Research to share significant scientific findings from the field of addiction treatment research.

Prevalence of Alcohol and Other Drug Dependence

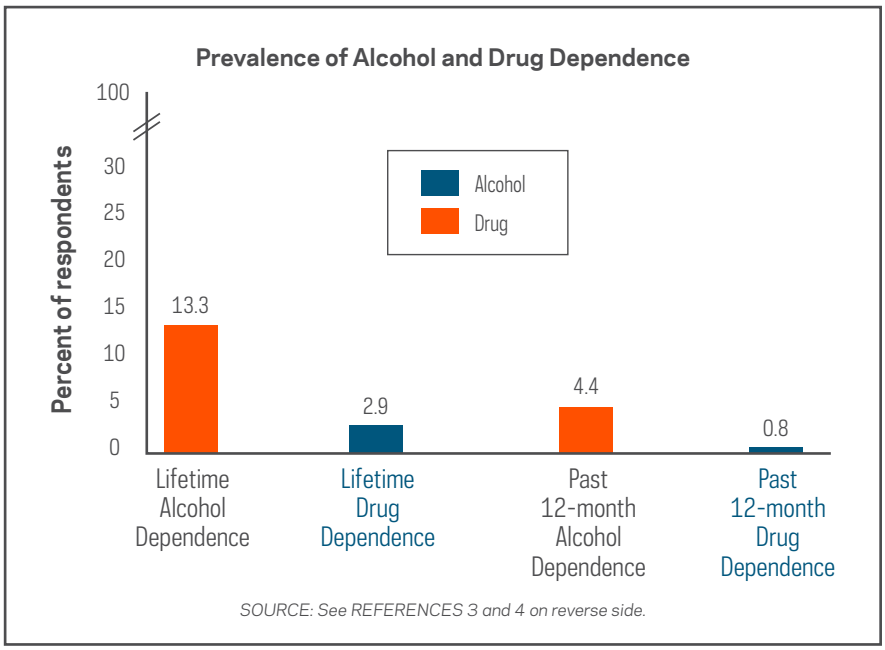
Accurately measuring the prevalence of alcohol and drug dependence is a recurring challenge for researchers. An estimation of current and lifetime dependence is essential for making policy decisions in prevention, treatment, and public health.

What is dependence?

Alcohol and other drug dependence is characterized by a cluster of symptoms that significantly impair life functioning. To satisfy the criteria for dependence in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) one must have three of the seven following symptoms in the same twelve month period: (1) tolerance; (2) withdrawal or avoidance of withdrawal; (3) substance taken more or for a longer duration than intended; (4) continuing desire or unsuccessful attempts to reduce or control substance use; (5) much time spent to procure, use, or recover from using the substance; (6) elimination or reduction of important social, work, or recreational activities in favor of or because of substance use; (7) and continuing to use the substance despite known psychological or physical repercusions.[1]

Substance abuse is defined as a harmful pattern of behavior resulting in clinically significant distress or impairment within a 12 month period. Examples of substance abuse behaviors include: failure to fulfill personal or occupational roles, repeated use in physically risky situations, substance-related legal problems, and social or interpersonal problems related to substance use.[1]

The DSM-IV does not consider amount or frequency of drinking or using. Rather it relies on an established behavioral pattern and harmful consequences of alcohol or other drug use to define dependence. Many investigations of alcohol and drug problems in the general population focus on the extent of illicit drug use or heavy drinking. These estimates, while useful to determine use and related problems, do not measure dependence.



SOURCE: See REFERENCES 3 and 4 on reverse side.

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THE HAZELDEN BETTY FORD EXPERIENCE

Consistent with NLAES findings, the most common drug of dependence for Hazelden patients is alcohol. In a study of 1,083 Hazelden patients 91.4% were diagnosed as alcohol dependent. 69.4% were alcohol dependent with at least one other substance use disorder. Further, 46.9% of Hazelden patients were diagnosed as marijuana dependent, 41.6% cocaine dependent, 25.6% barbiturate dependent, 19.9% amphetamine dependent, 12.9% hallucinogen dependent, and 15.6% opioid dependent.[12]

CONTROVERSIES & QUESTIONS

Question: *Is dependence the only way to understand alcohol and drug problems?*

Response: Clearly, someone who isn't alcohol or drug dependent can experience substance-related problems. Alcohol and drug abuse are also serious concerns. Regardless of the dependence status of the user, the effects of alcohol and drug use are immediate and impair cognitive functioning which may include: motor ability, criminal behavior, victimization, and health problems. To explain alcohol and drug problems only in terms of dependence would be short-sighted and would underestimate the effect of substance use on society.

Question: *What predicts drug dependence?*

Response: The strongest predictor of drug dependence is early onset of drug use. For each year drug use is delayed, the risk of dependence in the NLAES drug user sample was reduced by 5%. For males, females, and nonblacks early onset of drug use also predicted later alcohol dependence.[12]

HOW TO USE THIS INFORMATION

Policy Makers: Alcohol and drug dependence are common chronic illnesses. Prevention and treatment of these diseases warrants consideration in terms of both the financial and human consequences.

Educators: Promote the understanding that alcohol and drug dependence exists among all gender, ethnicity, and educational groups.

Health Care Professionals: The high prevalence of substance use disorders mandates routine screening among those seeking physical or mental health treatment.

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Prevalence of Alcohol and Other Drug Dependence

National Longitudinal Alcohol Epidemiologic Survey

In 1992, the National Institute of Alcohol Abuse and Alcoholism funded the National Longitudinal Alcohol Epidemiologic Survey (NLAES).[2] This well designed study included a nationally representative survey of 42,862 Americans who completed in-person interviews about the frequency and amount of alcohol and drug use in their lifetimes and the past twelve months. Further, the research measured symptoms of substance abuse and dependence using rigorous DSM-IV criteria. The research was limited in its estimate of prevalence because it did not include residents of mental and physical health care institutions, prisons, and the homeless, who have elevated levels of addictive disorders. As a result of this limitation, the research is most likely an underestimate of overall prevalence in the general population.[3]

Study Results

Results of the NLAES show clear differences in alcohol and drug use and dependence in the general population (see Figure on back).[3, 4] Alcohol dependence and use was far more common than drug dependence and use. Lifetime alcohol use, defined as consuming twelve drinks or more in any single year, was reported by 66% of respondents, compared with only 15.6% reporting lifetime drug use, defined as having tried a drug for nonmedical purposes at least twelve times.[5]

Using DSM-IV criteria, 13.3% and 2.9% of respondents reported lifetime alcohol or drug dependence respectively; 4.4% and 0.8% met the criteria for past 12 months alcohol or drug dependence respectively. Of people who had ever used alcohol 20.1% met the criteria for alcohol dependence. Similarly, 18.6% of people who had ever used drugs qualified as drug dependent.[3, 4]

Demographic Comparisons

More men than women, whites than nonwhites, more educated than less educated, and nonmarried than married were likely to use drugs. Likewise, more men than women, whites than nonwhites, and more educated than less educated were likely to drink alcohol. In contrast to drug use, married people were more likely than nonmarried people to drink alcohol.[3, 4]

Among alcohol users, more men than women, more whites than nonwhites, and more nonmarried than married, were likely to be alcohol dependent. Among drug users, men and women and whites and nonwhites were equally likely to be drug dependent. However, less educated versus more educated and nonmarried versus married people were more likely to be drug dependent. It is important to note that, despite differences in demographic groups, substance dependence was found in all demographic categories.[3, 4]

Treatment Populations

Elevated prevalence of substance use disorders is common among both mental and physical health treatment seekers. Conservative estimates of comorbid substance use disorders in schizophrenics patients are as high as 38%.[6] Among people with affective disorders, studies have shown comorbidity rates as low as 11% and as high as 75%.[6] Among another group of psychiatric patients, older adults, one study found the prevalence of substance use disorders at one in five patients.[7] Alcohol abuse and dependence are also common among physical health care treatment seekers. Estimates of alcohol abuse or dependence in primary health care settings range from 16-33% of all patients.[8]

Other Chronic Diseases

How does the prevalence of substance use disorders compare with other chronic diseases? The Centers for Disease Control (CDC) define chronic disease as prolonged, incurable diseases

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The Butler Center for Research informs and improves recovery services and produces research that benefits the field of addiction treatment. We are dedicated to conducting clinical research, collaborating with external researchers, and communicating scientific findings.

Patricia Owen, PhD,
Director

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that do not spontaneously resolve.[9] The CDC's estimates of general population prevalence rates of asthma, diabetes, and hypertension are 5%, 2.9%, and 10.7% respectively.[10] From this perspective, alcohol dependence is more prevalent than asthma, diabetes, or hypertension. Drug dependence has approximately the same prevalence as diabetes.

McLellan and colleagues[11] investigated further the similarities of asthma, type 2 diabetes, hypertension, and drug dependence. They found that drug dependence was similar to the other chronic illnesses in terms of heritability, role of personal responsibility for disease management, and pathophysiology.

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